analy used very small sample baseoloss nucl larger sample - and used 7 different confounds - released. used computer (toxalone fele reference-) of 7 found-notablest of information on keyting toxins on health effects -Product buch down products Joseph act. from UV rugs (heat) and polymers - when bredk down - relative chemica that arrent there to begin

> 2 keytone products animals-listing vnitations in respertory tract.

remote possibility - smoke residual after leaven,

#### EMERALD SCOTTSDALE HOMEOWNERS ASSOCIATION C/o 10955 E. Gary Road Scottsdale, AZ 85259

September 5, 1991

Mr. John Edwards, President Suntrol Window Products, Inc. 3767 East Broadway Rd. Suite 6 Phoenix. AZ 85040

Dear Mr. Edwards:

As I told you during our phone conversation of 9/4/91, we have recieved several complaints reguarding the sun screens which were installed when our 184 homes were built. The screens seem to no longer filter out any of the sunrays, the color has changed, and some of the protective materials have disintegrated.

We feel that all our screens should be replaced at no cost for materials or installation to our homeowners or our Association.

We would appreciate your presence at our Board meeting on Tuesday, September 10th at 7:00 pm sharp at the above address, to discuss this matter further. Please confirm with me by Monday pm at 860-2650.

Very truly yours,

Herbert Wolfsfeld, President

Hehert Wiffell



3333 W. Thunderbird Rd. Phoenix, Arizona 85023 (602) 375-0247

September 18, 1991

Suntrol Window Products, Inc. John Edwards, President 3767 East Broadway Road, Suite 6 Phoenix, AZ 85040

Dear Mr. Edwards:

We have noticed a discoloration of your sunscreen material installed here at North Mountain Village.

The change in color was limited to a few screens at first, but by summers end the discolored screen was scattered throughout the complex.

I have been made aware that other apartment complexes receiving sunscreens from your company have had similar problems and their screens were all replaced at no charge, so I would ask that you provide the same service here at North Mountain Village.

Please respond as soon as possible, the discolored screen has spoiled the curb appeal of our community.

Sincerely,

Daniel McGinn General Manager

ray

To whom it may concern:

lam writing this letterregarding our sun screens, they are changing colors, not vernaining in satisfactory condition. I would like to have I a representive come out and view the screens. I thank you for your spictance in this matter.

Sincerely, Connie Coron Community Marager

# SCOTTSDALE TRAILS

October 4, 1991

John N. Edwards Suntrol Window Products, Inc. 3767 East Broadway Rd., #6 Phoenix AZ 85040

RE: Scottsdale Trails H.O.A. Sun Screen Problems

Dear John:

Please accept this letter as approval to proceed with the inventory and warrantee work for screen replacements at Scottsdale Trails H.O.A.

I look forward to working with you and getting our problem resolved. If you should need anything or have any questions, please do not hesitate to call me at (602)948-0408.

Sincerely Scottsdale Trails H.O.A.

Dave S. Jarman Property Manager

cc: board file



November 8, 1991

John Edwards Suntrol Window Products 3767 E. Broadway, Ste. 6 Phoenix, AZ 85040

RE: Sun Screens @ Sun Village

Dear John:

It has come to our attention that many of our houses are showing defects in the sun screens which you have provided. I would appreciate setting up a time with you to discuss this problem.

Please call me at your earliest convenience to arrange a time that we can meet.

Thank you for your consideration in this matter.

Sincerely,

Lesle Sweeney

Construction Administrator

rat



October 14, 1991

Mr. John Edwards Suntrol Window Products 3767 E. Broadway, Suite 6 Phoenix, Az. 85040

Dear John.

As per our discussion regarding the recent problems we have been experiencing with the deterioration of shade screens at several of A-M HOMES projects, I would appreciate it if you would contact your Phiffer manufacturer representative and review the problem and get back with me as soon as possible to remedy this problem.

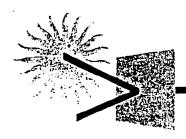
Please focus your attention to Camelview Greens first, seeing that most of the problems are there.

If you have any questions, please let me know.

Sincerely,

Purchasing Manager

JVS:at



### Suntrol Window Products, Inc.

3767 East Broadway Road, Suite 6 / Phoenix, Arizona 85040 602 / 437-4431

#### TELEFAX TRANSMISSION COVER

DATE; TO:	JERRY HYEONY		
SUBJECT:	DEFECTIVE SCIREEN AT LA ENTRADA		
NOTES:	FAX NO. SUNTROL (602)437-5061 FAGES INCLUDING TH IS COVER I JUST CAME ACOUST THIS REQUEST AND THOUGHT IS SEND IT YOUR WAY!		
	TRANSMISSION IS GARBLED OR MISSING ANY PAGES, PLEASE THE UNDERSIGNED AT (602)437-4431 OR, CALL TOLL FREE 9783		
THANK YOU	in Edward		

LA ENTRADA 16831 N. 58th ST. SCOTTSDALE, NZ. 85254

Suntrelwindow Products, Inc. 3767 East Broadway Road Proenix, Az. 85040





To whom it may concern:

lam writing this letterregarding our sun screens, they are changing colors, not remaining in satisfactory condition. I would like to have a representive come out and view the persent. I thank you for your espectance in this mother.

Sincerely, Connie Coron Community Marager 3491 North Arizona Avenue Unit 92 Chandler, Arizona 85225-1145 October 12, 1992

Mr. Greg McAdam Suntrol Window Products 3767 East Broadway Suite 6 Phoenix, Arizona 85040

Dear Mr. McAdam:

The window screens at my home are in very poor condition. I would like to have them replaced under the existing warranty.

The screens are breaking down. They have faded and appear to be facing the wrong direction. Touching the screens creates a powdery substance. I have been informed that the batch of screens that my screens were part of were not properly treated with a UV inhibitor. I understand that since the screens are only four years old they are still covered under the manufacturer's warranty. Therefore, I would like my window screens replaced under this warranty.

I can be reached at (602) 821-7618 during the day or (602) 892-8048 during the evening. Thank you for your prompt attention to this matter.

Sincerely,

Cheryl Gergel

Nov. 11, 92

Estes Homes Mesa, Arizona

Attention: John Luke

Mr. Luke:

As discussed with the service rep. in your office this morning, my husband and myself recently (June 92) purchased an Estes home in the Alta Mesa subdivision.

During routine window and screen cleaning, I gently cleaned our sunscreens manufactured by Suntrol Inc. with Ivory soap and warm water. While in the process I realized that the dark brown paint on the outside of the screen was washing off and leaving exposed the silver screen material underneath, which needless to say, does not block out any sun. Not only was the paint washing off, but there was a horrible odor coming from the screens, which I understand is toxic!

Upon further investigation of this frustrating matter, I discussed the screen problem with my neighbors and discovered that they have had the same problem with their screens and would also like something done to remedy this situation.

Not only are the screens in this neighborhood unsightly, but they also do not serve the purpose that was intended by having them installed as they do not block the sun out of our homes.

The screens are under warranty by Suntrol Inc. for five years from the time of installation and in good faith we spent our hard earned money to purchase their product. These homes are only four years old. Myself, as well as my neighbors, insist that Suntrol Inc. stand behind their warranty and replace the defective screens as soon as possible.

Thank you for your prompt attention to this matter. I look forward to hearing from you.

Respectfully,

Laura Nielson 5223 E. Hannibal Mesa, Az 85205

#### \* M E M O \*

TO: SUNTROL - John Edwards

DATE:

July 21, 1992

FROM: Bob Stewart

SUBJECT: Shade Screens

I have noticed more discoloring in the shade screens on the homes at Pinnacle Peak Crossing. I am requesting that Suntrol please contact the homeowners with this problem and make arrangements to replace the screens and at any of our other subdivisions where this problem might be occurring.

If you have any questions, please call me.

Thank you.

ESTES HOMEBUILDING COMPANY

Bob Stewart

Construction Manager

BS/sh

# CONSTRUCTION,

May 6, 1993

John Edwards Suntrol Window Products, Inc. 3767 E. Broadway Road, Suite #6 Phoenix, AZ 85040

Dear John:

As you know, our sunscreen contract at UDC community Warner Ranch, as well as some other UDC communities, called for all sunscreen purchased through UDC to be bronze in color; the idea is to retain uniformity throughout the subdivisions.

We encourage the proactive approach Suntrol has taken in locating and replacing the defective Phifer bronze sunscreen in our neighborhoods. On behalf of UDC and our homeowners, I would like to thank you for your attention to customer service.

Sincerely,

UDC HOMES CONSTRUCTION, INC.

Keith W. Fleckner (ymp)
Keith W. Fleckner

Contracts Manager

KWF/jmp



ADMINISTRATIVE OFFICE 5050 N. 8th Place, Suite 6, Phoenix, AZ 85014 (602) 264-4973 or 274-8340 (Emergency) P.O. Box 11289, Phoenix, AZ 85061

January 22, 1991

John Edwards, President Suntrol Window Products 3767 E. Broadway Phoenix. AZ 85040

Dear John:

I wish to express our extreme satisfaction with the excellent service your firm exhibited in the handling of the screen problem on the sixty unit complex known as Alta Mesa Chateaux in Mesa.

When we observed some of the screens were becoming discolored the homeowners envisioned a great deal of concern and the probability of much cost.

Within a two month period your firm removed all the screens in the entire project and replaced them with all new screens at no cost to the homeowners.

Both myself and all the homeowners are very grateful for this kind of understanding and service.

Thank you and future success in your business.

Sincerely,

ROSSMAR MANAGEMENT COMPANY

Bill Esler

Property Manager

BE:jl

#### BERNARD/FINNEY MANAGEMENT SERVICES, INC. -



July 15, 1991

Mr. John Edwards 3767 E. Broadway Phoenix, AZ 85040

Re: LaMirada Apartments

Sun Screens

Dear John:

I have been made aware that the material used for the sun screens at LaMirada was made of bad phifer. The defective product is not only ineffective but also is fading and unattractive.

In order to maintain the property appearance at our high standards, we request that the screens be replaced as soon as possible at no charge.

Your cooperation and prompt response will be greatly appreciated.

Sincerely,

Dalia Bureker, CPM District Manager

DB/jp

cc:Stacey Searl
Bill Ring

LAM/LETTERS/sunscreen.bad

Brokers and Construction Managers for:	☐ BenTree Corp.	☐ Camelback Park, Inc.
	D Evergreen West, Inc.	☐ Bell Park, Inc.
	☐ RCP Investments	☐ Ventana Canyon G V

July 16. 1991

John Edwards
Suntrol
3767 E. Broadway #6
Phoenix. AZ 85040

Dear John:

I am aware of a manufacturer defect to our shade screens installed at Crestview Chateaux located at 255 S. Kyrene in Chandler. Arizona. The screens have changed color since installation and the Association for this complex feels that the manufacturer should be held responsible for the total replacement of these screens.

We are aware that the manufacturer recently replaced these at Alta Mesa Chateaux's in Mesa for the same reason and we feel that it is only reasonable that the manufacturer do the same at this complex.

Please contact me as soon as possible to resolve this problem immediately or we may have to seek further action against the manufacturer as deemed necessary.

Sincerely.

Connie Uhan

Property Manager

Estes Homebuilding Co.

(602) 866-2000

## BERNARD/FINNEY MANAGEMENT SERVICES, INC.



August 2, 1991

Mr. John Edwards SUNTROL WINDOW PRODUCTS, INC. 3767 E. Broadway Rd., #6 Phoenix, AZ 85040

Re: LaMirada Apartments

Dear John:

We were very pleased when you took the time to look at the sunscreens at LaMirada. We were also pleased when a representative from Phifer agreed that the screens were defective and that Phifer would replace all of the screens at no cost to us.

Now after having informed the owner that the screens would be replaced, you inform me that the manufacturer is only considering replacing the defective screens. I am shocked at your supplier for changing their position on this matter. The screens at LaMirada are extremely offensive and the Phifer Company should be as embarrassed of this defective product as we are to have to display them.

I am aware of other properties that also received the same defective material, which was replaced by the manufacturer. I strongly suggest that Suntrol and the Phifer Company make good on their promise to replace the defective material, or we may take more aggressive steps to achieve satisfaction.

Bernard/Finney has been a customer of Suntrol Window Products for several years, and we have been happy with your service and products until now. I hope that in the future you will be more attentive to both customer needs and the products that you represent.

Sincerely,

Don Ellison

District Manager

DE/jp

LAM/LETTERS/defective.sun

#### CASA LOS CERROS HOMEOWNERS ASSOCIATION

.4901 S. Calle Los Cerros Tempe, Arizona 85282 (602) 438-1402

August 7, 1991

Suntrol Window Products 3767 East Broadway Road Suite 6 Phoenix, Arizona

Att: John Edwards

Dear John,

The suncreens installed on the windows here at Casa Los Cerros are changing colors, have a strange odor and seem to be deteriorating. I feel we may have some faulty sunscreen material. Please at your earliest convenience come to the complex and inspect the sunscreens and advise me as to the steps to correct this problem. I am sure we have a faulty product from the manufacture.

Thanks for your time and quick response.

Sincerely

Jim Sprinkle/Manager

Casa Los Cerros

#### 29 August 1991

To:

Suntrol Window Products, Inc.

3767 E. Broadway Road

Suite 6

Phoenix, Az. 85040

From:

La Esplanada Apartments Evans Withycombe, Inc. 8115 N. 18th Street Phoenix, Az. 85020

Dear Mr. John Edwards,

I'm writing to you regarding sun screens that were installed on our property in 1990. Most, if not all of the screens have faded and have become badly discolored. The brown coloring has turned shades of black. The appearance is very unattractive and I'm sure the sun block protection has also decreased.

I would appreciate if you could replace all the screens in a prompt manner. Thank you for your time.

Sincerely,

vebra vansbe

Community Manager

СС



MFR Suntry

DATE 6-15-9 ENSPECTOR 3 CHOCK

# INDOOR AIR QUALITY INVESTIGATION GERYK'S RESIDENCE HATFIELD, MASSACHUSETTS OCTOBER 9, 1992

#### INTRODUCTION

An indoor air quality assessment was performed by Envirocomp personnel at the Geryk residence on October 9, 1992. The purpose of the assessment was to attempt to identify any specific chemicals and their concentrations associated with coated fibrous glass screens. This report details the assessment protocol, sampling results, computer literature search, and conclusions of the assessment.

#### BACKGROUND INFORMATION

The owner of the residence, Mr. Geryk, reported that objectional odors are released by the screens in selected windows and skylights. He stated that the strongest odors occur during the day when direct sunshine contacts the windows/screens. The screens have been taken out of the residence some time ago. They stated that the odors were much worse when the screens were newer and the temperature (both ambient and their specific location with direct sunlight). For this project, they were reinstalled the day before sampling was performed.

#### SAMPLING DETAILS

The Geryk residence is located at #12 Plantation Dr. in Hatfield, Ma. The house, a single-floor ranch with a basement and an attached two car garage, is located in a residential neighborhood. The outside weather conditions at the time of arrival, 12:15 pm, were clear and cool with the measured temperature at 68 degrees Fahrenheit and the relative humidity at 42.5%.

Upon entering the house with Mr. and Mrs. Geryk they informed me of a faint odor which they smelled and how they believed it was coming from the screens. The screens are located in two skylights, a slider door, and a kitchen window. The measured average temperature inside was 73 degrees Fahrenheit and the relative humidity was 44.4%.

#### ASSESSMENT PROTOCOL

The sampling was performed on a mostly sunny day during the time period in the early afternoon when direct sun makes contact with the windows/screens. Upon arrival, pre calibrated air sampling pumps connected to a sampling train of charcoal tubes and Tenax adsorption tubes were strategically located in the den area, kitchen, and in the immediate vicinity of the skylights.

Sampling was conducted at both skylights, the sliding door located at the north wall exiting the kitchen/den area, and over the sink area in the kitchen (a total of 4 sampling locations). All sampling equipment was calibrated on site prior to the collection of samples. After the sampling equipment was set out and turned on, both the Envirocomp Industrial Hygienist and the Geryk's exited the house. It was not reentered until the conclusion of the sampling, approximately 2 hours later. This sample time was based on the sampling of approximately 100 liters of air.

Upon completion of sampling, all sample tubes were sealed and sent to an independent laboratory for Gas Chromatography/Mass spectroscopy (GC/MS) analysis following standard chain of custody protocol. The Laboratory, Environmental Health Laboratory, Cigna Loss Control Services, is a PAT accredited Laboratory located in Hartford, CT.

#### AIR MONITORING RESULTS

All samples provided similar results in where the chemicals were collected, and the chemicals identified. The charcoal adsorption tube (the first tube) collected the identifiable peaks, while the Tenax tube had no identifiable peaks (this was expected; the Tenax tube was downstream from the charcoal, and was in place to either identify breakthrough or materials that do not adsorb onto charcoal).

The following section of this report is a description of the findings categorized by the chemicals identified.

#### UNIDENTIFIED HYDROCARBONS

On each of the samples there were unidentified hydrocarbons at low levels. The Mass Spectrometer has a library of approximately 49,000 chemicals. However, for a match to be made, the peak (related to the amount of the chemical collected) needs to be large enough for it to be identifiable. For these samples, which is typical, various small peaks of aliphatic hydrocarbons were not identifiable. They were summed by weight, divided by the amount of air sampled, and reported as "Unidentified Hydrocarbons" in milligrams per cubic meter of air  $(mg/M^3)$ .

#### XYLENE

On each sample, a small concentration of xylenes (all isomers) were identified. Xylenes may normally be found in solvent based paints and thinners, gasoline, and other petroleum based hydrocarbons. The xylenes are quite volatile, with vapor pressures of approx. 7 millimeters of mercury (mm HG) @ 21° C, meaning that they readily evaporate off of a liquid that they are contained in. Although workplace exposure limits are not applicable to a residential setting, they are provided here only as a rough comparison of what is considered to be safe in the workplace to the levels found during this assessment in a residential setting. The OSHA limit for xylenes is 435 mg/M³ averaged over an 8 hour day. The concentrations found in the Geryk residence ranged from 0.015 to 0.021 mg/M³, which is many times below this workplace limit.

#### TOLUENE

Toluene, another aromatic chemical like xylene, was found on each of the samples at very low levels. Toluene may also be found in gasoline, paint thinners, and other petroleum distillates. Toluene is a volatile chemical with a vapor pressure of 37 mm HG  $\{0.30^{\circ}$  C. The current OSHA limit is 375 mg/M<sup>3</sup>; the sample results in the Geryk residence ranged from 0.030 to 0.083 mg/M<sup>3</sup>.

#### **ETHANOL**

Ethanol, or ethyl alcohol, is the active ingredient in alcoholic beverages, and is occasionally used as a solvent in various materials. It is also quite volatile, with a vapor pressure of 40 num HG  $\ell$  19° C. Levels in the Geryk residence ranged from 0.024 to 0.037 mg/M³, well below the current OSHA limit of 1900 mg/M³.

#### METHYL CHLOROFORM

Methyl chloroform, more commonly called 1,1,1-trichloroethane, is a chlorinated chemical that is normally used as a degreasing agent. It is very volatile, with a vapor pressure of 100 mm HG @  $20^{\circ}$  C. OSHA's current limit is 1900 mg/M³; levels found in the Geryk residence ranged from 0.014 to 0.024 mg/M³.

#### 2-METHYLPROPANE

2-Methylpropane, also called isobutane, is commonly used as a propellant for various aerosols. It is found in the gaseous state at normal room temperature and pressure. It does not have an OSHA exposure limit, however butane, similar in structure, has a current limit of 1900 mg/M³ (however, note that similar structures does not mean that they will have similar toxicological effects). The levels found in the Geryk's residence ranged from 0.19-0.25 mg/M³.

#### COMPUTER DATABASE SEARCH

A detailed computer data base search was made to identify the health effects of the above identified materials. This report is attached. In summary, each of these materials have various health effects.